

# **EMERGENCY MEDICAL SERVICES**

## ***I. PROGRAM OVERVIEW***

An Emergency Medical Services (EMS) system that ensures prompt and effective emergency medical services to victims of motor vehicle collisions is an essential component of California's plan to reduce the number of deaths and injuries resulting from motor vehicle collisions.

According to the 2003 California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) data, there were 306,685 persons in California that required EMS as a result of a serious motor vehicle collision. All of these individuals required emergency medical services at the crash scene and while en route to a trauma center, emergency communications, First Responder services, Emergency Medical Technician (EMT) or Paramedic services, medical equipment and supplies, and emergency transportation. Many of these crash victims also required specialized rescue equipment and trained personnel to extricate them from their vehicles and/or the crash scene.

Current research and the experience of emergency physicians, trauma specialists and other EMS providers recognize that trauma patient outcomes are best when patients are identified, transported and cared for at a medical facility within the critical "golden hour." The "golden hour" has become a standard used to measure the effectiveness of many components of EMS. A recent assessment of California's Emergency Medical Services conducted by the Emergency Medical Services Authority (EMSA) and National Highway Traffic Safety Administration (NHTSA) reports an effective EMS system requires and provides the following:

- Reliable and accessible communications.
- Adequately trained personnel.
- Life saving medical and rescue equipment.
- Safe, reliable, and rapid emergency transportation.
- Public information and education.
- Problem identification and evaluation.

## ***II. ACTION PLANS***

Adequately trained rescue personnel with access to appropriate and reliable equipment and vehicles are critical to an EMS system's ability to effectively care for victims of motor vehicle collisions. To meet this need, OTS plans to provide grant funds to full-time, paid-call, and volunteer EMS providing agencies to purchase and/or replace unreliable ambulances and first responder/rescue vehicles, extrication equipment, air bag lifting systems, and to provide training. With California's vast rural areas, paid-call and volunteer EMS agencies benefit immensely from OTS funding for ambulances, extrication equipment, communications, and public information materials.

Public information and education are also important components of an effective EMS system. The EMS provider is in a unique position to observe, understand, and educate the public about injury prevention. OTS provides funds for programs that enhance the public's knowledge of the EMS system, demonstrate safe and appropriate response to Code 3 responding vehicles (lights and sirens). The "Please Abide, Move Aside" program is an excellent examples of EMS public information and education programs planned for fiscal year 2005.

OTS plans to provide funds to continue work on the Statewide EMS Communications Plan. The EMS communications project will establish and implement an up-to-date and coordinated EMS communication system pilot in Imperial and San Diego counties by replacing aging and outdated equipment and installing new communication technology to integrate existing systems.

To achieve the greatest potential for reducing fatalities and injuries, OTS recommends grantees consider the following countermeasures when preparing their project agreements (*Note: The OTS "Blueprints" contain additional recommended "best practice" countermeasures*):

- To seek innovative low cost approaches to First Responder, EMT and Paramedic training and certification programs for rural areas.
- To utilize standardized training and certification programs for EMS dispatcher.
- To promote State certified training programs.
- To promote bystander-training programs.
- To assist with the development, and upgrade of outdated and unreliable EMS communication systems.
- To establish Data Linkage programs to enable providers to determine patient outcome and injury prevention strategies.
- To promote partnerships to support and coordinate comprehensive and integrated injury control systems.
- To promote public/private partnerships.
- To promote community involvement in traffic safety.
- To conduct a "lights and siren" public/driver awareness program.

### **III. TASKS**

#### ***TASK 1 - PROGRAM DEVELOPMENT AND ADMINISTRATIVE COORDINATION***

This task provides for the necessary staff time and expenses incurred by OTS that are directly related to the planning, development, coordination, monitoring, auditing, and evaluation of projects within this program area, and the preparation of the 2005 Highway Safety Plan. Funding is also provided in this task for the printing of brochures and pamphlets, distributing literature and media materials developed through successful projects, or obtained from other sources. Assistance is also provided under this task to individuals to attend and participate in technology transfer workshops, training sessions, or educational meetings or conferences.

#### ***TASK 2 - FIRST RESPONDER SERVICES***

Timely access to the appropriate equipment and medical supplies is essential to the EMS provider's ability to meet the needs of the motor vehicle collision victim. New automobile materials, technology, and alternative fuels create additional hazards and challenges for the EMS provider at the scene of a motor vehicle collision. Specialized equipment (hydraulic extrication tools, air bag lift systems) and training can make the difference between a patient receiving medical treatment within the critical "golden hour" or not. Removal of a victim trapped in the vehicle can average more than an hour without appropriate tools; with the use of hydraulic tools, the average extrication time is 15 minutes. Eighteen new projects are planned under this task and one project will be continued. The goals of these projects are to improve EMS delivery to traffic collisions victims and to reduce response times for the arrival of appropriate equipment to the scene and/or the extrication of collision victims.

Those projects with a ( ) following the agency name are regional projects. A regional project is multi-jurisdictional, addressing the equipment and training needs of City Fire Departments, Volunteer Fire Departments, Fire Protection Districts and County Fire Departments. The number in the ( ) specifies the number of jurisdictions participating in the project.

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<b>Project No.</b>	<b>Agency</b>	<b>Hydraulic Equipment</b>	<b>Airbags</b>	<b>Thermal Imaging</b>	<b>Rescue Vehicles</b>	<b>2005 Funds</b>
EM0405	Del Mar Fire Department	N/A	N/A	N/A	N/A	\$0
EM0420	Plumas County Public Health Agency	N/A	N/A	N/A	N/A	\$0
EM0501	Anderson Fire Protection District (15)	11 sets	N/A	N/A	N/A	\$261,208
EM0503	Butte County Fire Rescue (4)	12 sets	12 sets	N/A	1 @25%	\$273,127
EM0504	California Department of Forestry (Amador) (4)	6 sets	N/A	N/A	N/A	\$83,852
EM0505	Ceres Emergency Services Division (18)	14 sets	6 sets	N/A	N/A	\$574,334
EM0507	Daly City Fire	1 set	2 sets	N/A	N/A	\$90,967

Project No.	Agency	Hydraulic Equipment	Airbags	Thermal Imaging	Rescue Vehicles	2005 Funds
	Department (3)					
EM0509	El Dorado County Fire Districts (9)	8 sets	2 sets	N/A	N/A	\$274,479
EM0510	Kern County Fire Department (12)	N/A	N/A	N/A	N/A	\$28,000
EM0511	Lompoc/Santa Maria Fire Departments	2 sets	1 set	N/A	N/A	\$60,000
EM0512	Murphy's Fire Protection District (3)	2 sets	N/A	N/A	N/A	\$52,000
EM0513	North Tahoe Fire Protection District (3)	7 sets	N/A	N/A	N/A	\$66,050
EM0514	Pinole Fire Dept.	1 set	1 set	N/A	N/A	\$52,564
EM0515	Riverside County Fire Department (11)	7 sets	22 sets	1	1 @ 25%	\$372,089
EM0516	Riverside Fire Department	1 set	1 set	N/A	N/A	\$37,300
EM0517	San Bernardino County Fire Marshal (14)	16 sets	9 sets	1	N/A	\$625,688
EM0518	Arroyo Grande (8)	16 sets	N/A	N/A	N/A	\$250,000
EM0519	Sonoma County (12)	7 sets	12 sets	N/A	N/A	\$360,150
EM0521	Tulare County Fire Department (4)	6 sets	N/A	N/A	N/A	\$199,419
EM0522	Tuolumne County (5)	5 sets	5 sets	N/A	N/A	\$156,508

### ***TASK 3 - LIFE SUPPORT DELIVERY***

Safe, reliable ambulance transportation is a critical component of an effective EMS system. In rural areas, the purchase and maintenance of an ambulance is a continuing problem. Low call volume and sparse population make it difficult if not impossible to obtain the monies required to provide and maintain quality emergency medical services and transportation. Many of California's rural communities are located along heavily traveled highway corridors and in areas frequented by thousands of tourists. The distance between these communities and local trauma centers makes the availability of reliable ambulance and trained ambulance personnel critical. There are currently no projects planned or continued under this task.

### ***TASK 4 - DATA COLLECTION***

Data collection and ready access to available data are a continuing challenge for the EMS community. Many of the state's EMS providers are collecting important data by hand or not at all. The availability and access to data enables the EMS provider to determine injury prevention strategies, program strengths and weaknesses, training needs, allows effective deployment of resources and provides information to improve patient care and outcome. There are currently no projects planned or continued under this task.

## ***TASK 5 - COMMUNICATIONS***

A reliable communications system is an essential component of an overall EMS system. Public access to emergency services is hampered in many areas by over burdened 911 systems, dead spots in wilderness and mountainous areas, and long stretches of highway with no access to telephone landline or cellular services. A variety of communications systems are currently in use (VHF, UHF, 800 MHz) in the state, many are outdated and unreliable. This variety of systems causes enormous problems with interagency operability. The EMS provider's access to reliable communication is critical to the safety of the EMS provider, effective deployment of resources and positive patient outcomes.

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### **EM0008 - EMERGENCY MEDICAL SERVICES AUTHORITY STATEWIDE EMS COMMUNICATION SYSTEM PLAN PROJECT**

The Statewide EMS Communication System Plan project is continued into fiscal year 2005. This project provides funds for personnel, a communications systems consultant, repeaters and other communications and computer equipment. The goals of this project are to establish and implement an up-to-date and integrated EMS communication system statewide and to improve EMS communication system statewide through the replacement of out-dated and aging technology. (\$382,634)

### **EM0341 - IMPERIAL VALLEY EMERGENCY COMMUNICATIONS AUTHORITY LOCAL EMERGENCY MEDICAL SERVICES COMMUNICATIONS SYSTEM PLAN PROJECT**

The Local Emergency Medical Services Communications System Plan project is continued into fiscal year 2005. Imperial Valley Emergency Communications Authority (IVECA) will implement a plan for an intra- and inter- county EMS communication system to foster coordinated EMS communications between regions and counties, public and private providers, hospitals and public safety agencies in the area. IVECA will also work with the Emergency Medical Services Authority (EMS Authority) to develop a local EMS Communications Plan template that will be integrated into the State EMS Communications Plan and used as a model for local communications systems throughout the state. (\$104,212)

## ***TASK 6 - TRAINING***

EMS personnel can perform their mission only if adequately trained and available in sufficient numbers throughout the State. Rescue personnel with First Responder, EMT and Paramedic training can mean the difference between life and death for motor vehicle collision victims. This is especially true in rural areas, and highly congested metropolitan areas where distance and congested traffic conditions critically increase the time required to arrive at the crash scene, extricate and transport victims.

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### **EM0421 - PORTOLA FIRST RESPONDER PROGRAM**

The First Responder Program project is continued into fiscal year 2005. This project provides funding for a first responder program within the city's volunteer Fire Department to supplement the minimal emergency services provided to the city by the Eastern Plumas

District Hospital. The program will train 30 first responders and provide medical equipment for vehicles in the Fire Department fleet. (\$1,350)

### ***TASK 7 - PUBLIC AWARENESS AND EDUCATION PROGRAMS***

Public information and education is a key component of an effective EMS system. The EMS provider is in a unique position to observe, understand and educate the public about injury prevention. These programs enhance the public's knowledge of the EMS system, support appropriate use of system access (911), demonstrate essential self-help and appropriate bystander care actions and encourage injury prevention.

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#### **EM0327 - SAN FRANCISCO FIRE DEPARTMENT PLEASE ABIDE, MOVE ASIDE PROJECT**

The Please Abide, Move Aside project is continued into fiscal year 2005. This project is a public education campaign designed to inform the driving public to yield safely to responding emergency vehicles. Project funds will provide for a public information/education campaign, educational materials (English, Spanish and Chinese), promotional items and website development. Program promotion includes advertising on buses and bus shelters (donated space) and public service announcements. The goal of this program is to reduce the number of collisions and the associated costs from crashes involving emergency vehicles and the motoring public by 20 percent. (\$0)

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#### **EM0506 - LOS ANGELES OPERATION RIGHT MOVE**

This public education campaign is aimed to encourage the driving public to yield safely to responding emergency vehicles. The campaign will target a significant reduction in the number of collisions, injuries, and associated costs involving Los Angeles City Fire Department (LAFD) emergency vehicles by launching and sustaining a citywide public safety campaign. Operation Right Move will increase safety among emergency vehicles and will secure a cooperative agreement with television media to promote the broadcasting of a Public Service Announcement. Strong messages through a paid advertisement campaign will also be included. The Los Angeles Police Department will provide training to LAFD on how to create and maintain a centralized fleet safety program. (\$177,380)

### ***TASK 8 - EVALUATION/ASSESSMENTS***

The rising costs of medical care and the increasing demands on limited available dollars make problem identification and program evaluation a priority. Needs assessments and program evaluation enable the EMS provider to determine injury prevention strategies, program strengths and weaknesses, and the need for equipment and training. There are currently no projects planned or continued under this task.

**FISCAL YEAR 2005 PROGRAM FUNDING  
(EMERGENCY MEDICAL SERVICES)**

Task	Title	Major Cost Items						
1	Program Development and Administrative Coordination	Personnel, Travel, Contracts, Printing						
2	First Responder Services	Rescue Vehicles and Equipment (JAWS and Air Bag Lifting Systems)						
3	Life Support Delivery	Ambulances and Equipment						
4	Data Collection	Personnel Costs, Operating Expenses, Computer Hardware and Software						
5	Communications	Personnel, Communications Equipment, Computer Hardware and Software						
6	Training	Personnel Costs, Operating Expenses, Educational Materials, Training Equipment, Travel Expenses						

  

Program Code	Task No/ Agency	Funding Sources/Codes						Estimated Agency Contribution
		157	163	164	402	405	410	
EM	1 Local	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	State	\$0.00	\$0.00	\$0.00	\$155,413.00	\$0.00	\$0.00	\$0.00
EM	2 Local	\$0.00	\$0.00	\$0.00	\$3,817,735.00	\$0.00	\$0.00	\$26,100.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EM	3 Local	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EM	4 Local	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EM	5 Local	\$0.00	\$0.00	\$0.00	\$104,212.17	\$0.00	\$0.00	\$82,000.00
	State	\$0.00	\$0.00	\$0.00	\$382,633.79	\$0.00	\$0.00	\$0.00
EM	6 Local	\$0.00	\$0.00	\$0.00	\$1,350.00	\$0.00	\$0.00	\$5,655.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**FISCAL YEAR 2005 PROGRAM FUNDING  
(EMERGENCY MEDICAL SERVICES)**

Task	Title		Major Cost Items					
7	Public Awareness and Education Programs		Personnel, Contracts, Educational Material, Printing and Duplication, Travel Expenses, Advertising Air Time					
8	Evaluation / Assessments		Personnel, Computer Hardware and Software, Contracts, Travel Expenses, Printing and Duplication					
Program	Task No/ Agency	Funding Sources/Codes						Estimated Agency Contribution
Code		157	163	164	402	405	410	
EM	7 Local	\$0.00	\$0.00	\$0.00	\$177,380.00	\$0.00	\$0.00	\$0.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EM	8 Local	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	State	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>PSP TOTALS</b>								
<b>LOCAL:</b>		\$0.00	\$0.00	\$0.00	\$4,100,677.17	\$0.00	\$0.00	\$113,755.00
<b>STATE:</b>		\$0.00	\$0.00	\$0.00	\$538,046.79	\$0.00	\$0.00	\$0.00